# FISCAL YEAR 2015 ANNUAL WORK PLAN



A PROGRAM OF THE TCEQ

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# **LIST OF ACRONYMS**

Table 1. Acronym List

Name	Acronym
American Recovery and Reinvestment Act	ARRA
Association of National Estuary Programs	ANEP
Bacteria Implementation Group	BIG
Bayou Preservation Association	BPA
Budget and Priorities	B&P
Clean Water Act	CWA
Coastal Impact and Assistance Program	CIAP
Comprehensive Conservation Management Plan	ССМР
Conservation Assistance Program	CAP
Fats, Oils, and Grease	FOG
Galveston Bay Council	GBC
Galveston Bay Estuary Program	GBEP
Galveston Bay Foundation	GBF
Galveston Bay Plan	The Plan
Geotechnology Research Institute	GTRI
Government Performance and Results Act	GPRA
Gulf Intracoastal Waterway	GIWW
Houston-Galveston Area Council	H-GAC
Implementation Plan	I-Plan
Low Impact Development	LID
Monitoring and Research	M&R
National Broadcasting Company	NBC
National Estuary Program	NEP
National Fish and Wildlife Foundation	NFWF
National Wildlife Refuge	NWR
Natural Resource Uses	NRU
Nonpoint Source	NPS
Public Participation & Education	PPE

Name	Acronym
Public Service Announcement	PSA
Quality Assurance Project Plan	QAPP
Request for Grant Applications	RFGA
Resources and Ecosystem Sustainability, Tourist Opportunities and Revived Economies	RESTORE
Texas A&M University Galveston	TAMUG
Texas Commission on Environmental Quality	TCEQ
Texas General Land Office	GLO
Texas Parks and Wildlife Department	TPWD
Texas State Soil and Water Conservation Board	TSSWCB
Texas Water Resources Institute	TWRI
Total Maximum Daily Load	TMDL
U.S. Environmental Protection Agency	EPA
U.S. Fish and Wildlife Service	USFWS
United States Geological Survey	USGS
Water Quality Improvement Projects	WQIP
Water and Sediment Quality	WSQ
Watershed Protection Plan	WPP

#### **SECTION 1: PROGRAM OVERVIEW**

Galveston Bay is the largest and one of the most productive estuaries in Texas and sits adjacent to one of the most heavily urban industrialized areas in the nation. The Galveston Bay Estuary Program (GBEP) service area encompasses 232 miles of estuarine shoreline along the upper Texas Coast and incorporates the 5-county area bordering Galveston Bay: Liberty, Chambers, Harris, Galveston and Brazoria counties.

GBEP was established in 1989 to provide comprehensive management of this vital resource. In 1990, GBEP began working with a diverse group of stakeholders to develop a comprehensive plan that would receive broad based support from and involvement by federal and state agencies with jurisdiction in Galveston Bay, industries and businesses, local government officials, commercial and recreational fisherman, conservation organizations, and citizens. In 1994, The Galveston Bay Plan (The Plan), the Comprehensive Conservation and Management Plan (CCMP), was complete, and in 1995 it was approved by the Governor of Texas and the U.S. Environmental Protection Agency (EPA) Administrator. This effort was jointly funded by the EPA and the Texas Commission on Environmental Quality (TCEQ).

The Plan identifies 82 action items to protect and restore the health and productivity of the estuary while supporting continued economic growth and public use of the Bay. GBEP received a grant from EPA to begin implementing The Plan in 1995. This grant ran from FY 1995-1999 and is now closed. Subsequent grants have run from FY 2000 – 2003, FY 2004 - FY 2007, FY 2008 – 2010, and FY 2011-2013. Over 200 implementation projects were initiated under these grants. This work plan outlines the second year of projects to be implemented in the sixth grant that will run from FY 2014 to FY 2016.

GBEP and its partners have received fifteen national awards for its partnerships and progress in implementing The Plan and preserving Galveston Bay.

#### PRE 2008 AWARDS

- Four awards from Coastal America (one in 1999, Clear Creek Habitat Restoration project, for the beneficial use of dredge material, one in 2002 for Galveston Island State Park habitat restoration, one in 2003 for habitat restoration at Jumbile Cove, and one in 2005 for San Jacinto State Park for beneficial use of dredge material)
- Recognition award from the National Aeronautics and Space Administration for Galveston Bay Estuary restoration and five years of implementation of the Galveston Bay Plan
- National Wetland Conservation Award for the Delehide Cove Protection and Restoration project from the U.S. Fish and Wildlife Service (USFWS) in 2006
- EPA Gulf of Mexico Program Gulf Guardian Partnership Award for the Brays Bayou Urban Wetlands project
- The Fisheries and Habitat Conservation Partnership award for the cumulative habitat conservation work on the part of the Natural Resource Uses (NRU) Subcommittee
- Two EPA Gulf of Mexico Program Gulf Guardian Awards to GBEP partners, including an award in the non-profit category to SCENIC GALVESTON for the Virginia Point Coastal Preserve; in which GBEP played an instrumental role, and an award in the individual category to Dick Benoit, a highly active local citizen

#### FY 2008-PRESENT AWARDS

 EPA Gulf of Mexico Program was awarded the First Place Gulf Guardian Award in the Partnership category for the East Bay Shoreline Protection Project

- Department of Interior's Collaborative Conservation award for the East Bay Shoreline Protection
   Project
- EPA's Gulf of Mexico Program Gulf Guardian Partnership Award for the North Deer Island Protection Project
- Coastal America Partnership Award for the North Deer Island Protection project
- Coastal America Partnership Award for the Savannah Oaks Conservation project

#### SECTION 2: INTRODUCTION

GBEP, a special non-regulatory program of the TCEQ, is a partnership of local governments, business and industry, conservation organizations, bay user groups, and resources agencies. The program charged with implementing The Plan, the CCMP for Galveston Bay. GBEP is part of the TCEQ's Office of Water, Water Quality Planning Division. A Program Manager and staff of six located in the Houston-Galveston area directly oversee implementation of The Plan. Program staff responsibilities are as follows:

- Acquire, manage, and disburse funds to implement specific actions in The Plan;
- Provide for coordination and communication among state and federal resource agencies for the many cross jurisdictional issues;
- Coordinate, monitor and track implementation activities of Plan partners;
- Identify and communicate bay improvements to agencies, stakeholders, and the public (see Figure 1);
- Conduct public outreach and education to increase awareness of Galveston Bay;
- Advocate conservation of the estuary; and,
- Maintain stakeholder involvement in the decision-making process through the Galveston Bay Council (GBC) and its subcommittees.



Figure 1. The EPA 5 year Program Evaluation site visit included a day of field trips to local watershed projects, including the University of Houston, Clear Lake storm water wetland research site in July 2013– Taken by Sarah Bernhardt.

# SECTION 2.1: GALVESTON BAY ESTUARY PROGRAM ORGANIZATIONAL STRUCTURE

The TCEQ's GBEP has the primary responsibility for coordinating and administering the work plan. Program staff and job descriptions are provided below.

**Sarah P. Bernhardt, M.S., Ph.D.**, Program Manager, is responsible for overall implementation of The Plan, including: securing and managing funds to support operations, staff, and projects; fostering stakeholder involvement to facilitate Plan implementation; managing program staff and operations to ensure efficient use of resources; and representing GBEP on national, state, and local boards and committees and at national and state conferences/events to garner federal and state support. The Program Manager also provides coordination for the GBC.

**Lindsey Lippert**, NRU Coordinator, is responsible for coordinating implementation of Habitat, Species, Freshwater Inflows, Shoreline Management, and Spills and Dumping actions in The Plan; coordination of Invasive Species Workgroup and NRU Subcommittee of the GBC; implementing specific projects to restore and protect habitat and manage and control invasive species; maintaining Government Performance and Report Act (GPRA) and EPA reporting.

Lisa Marshall, M.S., Monitoring and Research (M&R) Coordinator and Water and Sediment Quality (WSQ) Coordinator, is responsible for coordinating implementation of Storm Water, Wastewater, Septic Systems, Seafood Safety, and Research actions in The Plan; coordinating the Regional Monitoring Program, including data management/reporting, and development and application of environmental indicators; facilitating the M&R and WSQ subcommittees of the GBC; and researching, evaluating and reporting findings concerning scientific and technical issues impacting Plan implementation.

Cynthia Clevenger, Public Participation and Education (PPE) coordinator and Community Relations Specialist, is responsible for building relationships and developing communication channels and dialogue with local government officials, private sector, and other outside organizations key to implementing The Plan. This position facilitates cross-sectoral learning of public relations and marketing activities for the Galveston Bay watershed; organizes and manages community relations events and the State of the Bay symposium; tracks emerging stakeholder community concerns/issues Ms. Clevenger also coordinates the PPE subcommittee; provides information to stakeholders, the general public and media; oversees the Galveston Bay Public Awareness campaign; promotes special events and projects; and website maintenance.

**Michelle M. Weber, M.S.,** Technical Programs Coordinator, is responsible for serving as the quality assurance officer and as the contracts specialist, budget liaison and grants coordinator for GBEP. Ms. Weber also coordinates development and submission of federal reports, identifies and tracks the evolution of issues affecting bay management, and researches policy, technical and management results that pertain to Galveston Bay in collaboration with the NRU and WSQ coordinators.

Mary Stiles, Education and Outreach Support, handles GBEP exhibiting events, maintains Program contacts database, handles timekeeping, conducts K-12 presentations, and supports general activities of the PPE team and subcommittee. Ms. Stiles manages the annual Trash Bash contract and Spanish language community outreach.

**Doretta G. Thomas**, Administrative Assistant, is responsible for travel coordination, vehicle and equipment maintenance and repairs, mail, correspondence, office safety, and general administrative support for the Program.

#### PROGRAM COMPETENCY DEMONSTRATION

The following statements demonstrate GBEP's competency as a Continuing Environmental Program:

- Competency is demonstrated by the TCEQ Quality Systems Audit conducted by Sharon Coleman, Agency Quality Assurance officer, on May 28, 2014.
- Competency is demonstrated through EPA Quality Project and Program Management training taken by Sarah Bernhardt, Lisa Marshall, and Michelle Weber on 4/8/14-4/10/14. Lindsey Lippert completed EPA Quality Assurance Management training on 3/21/2007. Certificates are available upon request.
- Competency is demonstrated through the EPA approved TCEQ Quality Management Plan (Revision 19 approved February 2014) that GBEP operates under, which provides descriptions of the quality policies, including all the requirements described in EPA QA/R2.

# **SECTION 2.2: FY 2014 GOALS AND ACCOMPLISHMENTS**

GBEP partners made notable achievements in improving water quality, restoring wetlands, protecting unique habitats and educating the public in 2014. These achievements are highlighted in the following sections.

# HABITAT AND LANDSCAPE-LEVEL CONSERVATION: CREATING, RESTORING, & PROTECTING COASTAL HABITAT

Since 2000, GBEP and its partners created, protected, and enhanced 24,218 acres of important coastal habitats, leveraging approximately \$82,500,000 in local, industry, state, and federal contributions.

Although the habitat conservation efforts of the GBEP and its partners are bay-wide, focus has been given to West Bay. The combined, collective efforts in West Bay were highlighted in the President's 2011 Fifty-State America's Great Outdoors Report as one of the country's most promising projects. The report highlights initiatives in each state for conservation, recreation, and reconnecting people to the outdoors.

In the past year, GBEP protected and restored 739 acres of wetlands and coastal habitats, protected 2,125 linear feet of bay shoreline, and leveraged \$1,639,163 in local, industry, state, and federal contributions. Through projects currently in progress, GBEP and partners will protect or restore an additional 7,500 acres of coastal habitat.

Since the start of FY 2014 an additional 2,088 acres of coastal habitat have been permanently protected through conservation efforts of the NRU Subcommittee, including the Conservation Assistance Program (CAP).



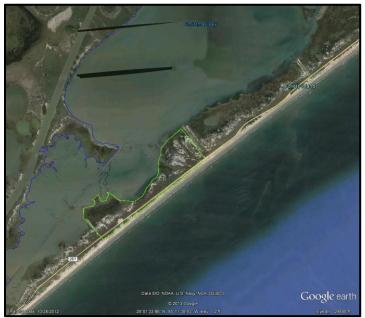


Figure 2. Follet's Island photo from Google Earth

FY 2015 Annual Work Plan, Page 5 Galveston Bay Estuary Program Recognized by the USFWS as a nationally significant coastal barrier ecosystem, Follet's Island (see Figure 2) is situated within the Gulf Prairies and Marshes ecological region and borders Drum and Christmas Bays. Christmas Bay, a Texas Parks and Wildlife Department (TPWD) Coastal Preserve, is described as a Bay of unique high quality that is relatively unaltered by human activity. The land north of and adjacent to the preserve is the Brazoria National Wildlife Refuge and is an integral part of protecting the water quality and wildlife habitat north of Christmas Bay. However, the majority of the area south of Christmas Bay is privately owned.

The purpose of this project was to acquire and conserve in perpetuity 441 acres of coastal barrier habitat (coastal prairie, palustrine and estuarine wetlands, and beach and dune habitats) on Follet's Island. GBEP funded the surveys and appraisals on the property, and helped to secure \$1,000,000 in the 2008 cycle of Coastal Impact Assistance Program (CIAP). Due to administrative delays in the primary funding source and rising land costs, the property was appraised in 2013 at \$1,400,000, which exceeded the existing funding amount allocated to the project. The Texas General Land Office (GLO) was able to secure an additional \$400,000 in reallocated CIAP funds to complete the project. Brazoria County purchased the property in February 2013 from the School Land Board and will donate it to TPWD for long-term management.

Settegast Coastal Heritage Preserve

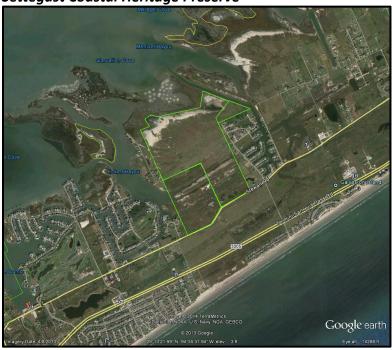


Figure 3. Settegast Coastal Heritage Preserve is located in West Bay, Galveston County. Map indicating parcel boundaries was created using Google Earth.

The Settegast conservation project area contains 360 acres of coastal prairie and freshwater depressional wetlands along the northern shoreline of West Bay (see Figure 3), and is part of the West Bay Conservation Initiative. The West Bay Conservation Initiative is a concentrated effort in West Bay comprised of numerous conservation, restoration, and habitat protection projects being undertaken and supported by non-profit organizations, state and federal agencies, as well as private partners. The objective of the initiative is to protect and restore habitat and associated biological communities critical to the Galveston Bay ecosystem including fringing intertidal and high marsh, tidal flats, freshwater wetlands and coastal prairie. Acquiring for permanent conservation the parcels within the Settegast project area will contribute to ongoing efforts to maintain the physical and biological integrity of Galveston Island and the productivity of West Galveston Bay.

To date, project partners have permanently protected 120 acres of the targeted parcels, with another 58 acres to be purchased before the end of FY 2014, and leveraged over \$4,000,000. Project partners are investigating the use of Gulf Restoration funds to secure the remaining acreage at the site.

#### **Conservation Assistance Program**

The goal of the CAP is to support regional efforts to preserve wetlands and important coastal habitats that will protect the long-term health and productivity of Galveston Bay. With the help and consensus of conservation partners, a collaborative effort between GBEP, Galveston Bay Foundation (GBF) and Texas Coastal Partners will identify conservation projects, develop funding strategies, work with landowners to negotiate conservation transactions, carry out due diligence, and finalize purchase and transfer of title to the appropriate land conservation entity.

To date, two projects have closed under this partnership, Bulanek Farms and Anahuac National Wildlife Refuge (NWR) Coastal Prairie, permanently protecting 1,889 acres and leveraging \$2,568,000. Many additional projects are ongoing, including Lone Pine Farm (1100 acres), Austin Bayou Woods (315 acres), Settegast (360 acres), Gordy Marsh (1800 acres), and Bolivar Flats (60 acres).

In 2008, GBEP secured \$2,000,000 from CIAP to permanently protect properties in the West Bay Watershed. In 2012, project partners permanently protected Savannah Oaks Ranch, a 700-acre rice farm near the Brazoria NWR, situated at the convergence of Austin and Flores Bayous. The property provides much needed habitat for the declining mottled duck population, which thrives on rice fields. Under this land agreement (conservation easement), the family will continue to maintain the property's current use as a working farm while preserving its wildlife values in perpetuity.

Two additional properties have been identified for funding under this initiative; the Hitchcock Prairie Project in Galveston County, and Austin Bayou Woods in Brazoria County. Together, the completion of these projects will permanently protect up to 3,515 acres of coastal habitat.

**Virginia Point Shoreline Protection** 



Figure 4. Virginia Point shoreline during extreme low tide event. Shoreline erosion is visible in background – Taken by Lindsey Lippert.

Virginia Point, shown in Figure 4, features 10,000 feet of shoreline in exposed to a broad expanse of open

water across West Bay, with sufficient fetch to create high-energy wind-generated waves from the prevailing southerly winds. Virginia Point is also adjacent to the port of Texas City and the Gulf Intracoastal Waterway (GIWW), through which numerous large vessels pass and consequently is subject to ship-generated wake. Finally, groundwater withdrawals and mineral extraction have caused coastal subsidence throughout much of the area, which in turn has caused the loss of protective marshes and submergence of protective oyster reefs.

The primary outcome of this project is to protect rich and diverse habitats within the preserve from direct loss due to erosion through placement of breakwaters. The secondary outcome is to restore up to 25 acres of marsh behind the protective breakwater structures.

GBEP is funding the engineering and design of up to 10,000 feet of shoreline protection project partners which previously secured \$1,000,000 from the CIAP. In November 2013, project partners were awarded an additional \$675,000K from the GLO Coastal Erosion Planning and Response Act Cycle 8 to fund additional breakwater construction.

# **Gulf Environmental Benefit Fund**

NFWF's Gulf Environmental Benefit Fund was established in early 2013 as a result of two plea agreements resolving the criminal cases against BP and Transocean after the 2010 Deepwater Horizon oil spill. The agreements direct a total of \$2.544 billion to NFWF over a five-year period. Funding will be used to support projects that remedy harm to natural resources (habitats, species).

In November 2013, the Hitchcock Prairie Project (West Galveston Bay Conservation Corridor Habitat Preservation) was selected as one of five Phase I projects in Texas for the National Fish and Wildlife Foundation (NFWF) Gulf Environmental Benefit Fund, created as part of the settlement between the U.S. Department of Justice, British Petroleum and Transocean in relation to the 2010 Deepwater Horizon oil spill. The project was awarded \$4,075,000, and will leverage an additional \$1,000,000 of GBEP's West Bay CIAP funding.

This project proposes to acquire a permanent conservation easement on a contiguous 3,200 acre tract(s) of estuarine emergent marsh, open water, prairie depressional wetlands and upland prairie habitat. This tract is located within the West Bay Conservation Corridor in close proximity to 6,500 acres of conserved habitat.

The growing aggregate of permanently protected properties comprises a habitat corridor complementary to three federal refuge system complexes in the Galveston Bay vicinity (Brazoria and San Bernard to the west and Anahuac to the east). The easement will be negotiated and held by SCENIC GALVESTON, Inc., a local conservation organization that already holds conservation titles on 3,000 acres of lands within the West Bay Conservation Corridor.

NFWF is engaged in consultation with the Texas Parks and Wildlife Department, Texas Commission on Environmental Quality, Texas General Land Office and federal resource agencies to identify priority conservation projects for Phase II consideration under the Gulf Environmental Benefit Fund. GBEP is working closely with partners to build collaborative projects for subsequent phases of funding from NFWF and other Gulf spill restoration funds.

## **IMPROVING & PROTECTING WATER QUALITY: SUPPORTING CORE CLEAN WATER ACT PROGRAMS**

In support of EPA's core Clean Water Act (CWA) goals GBEP has worked to build capacity of local stakeholders through watershed protection planning and implementation of water quality improvement projects (WQIPs). Through this effort in coordination with other water programs of TCEQ and local stakeholders, 90% of impaired waters in the five county region surrounding Galveston Bay have some level of watershed protection or improvement being enacted.

#### Watershed Protection Plans (WPPs)

#### Bastrop Bayou

The Bastrop Bayou WPP is in final review with TCEQ and EPA. The GBEP provided initial funding to complete a risk assessment of the watershed and supplied local match for the CWA §319 grant and staff support during the development of the WPP. Planning efforts have led to local support for the annual Trash Bash clean up; seeking of additional funds by the county and the local community of Demi John to resolve the community's chronically failing septic systems; and a donation of 300 acres of land along Bastrop Bayou by DOW Chemical Company as a unit of the San Bernard NWR. Houston-Galveston Area Council (H-GAC) began an implementation project with TCEQ in FY 2014 to initiate addressing bacteria sources in the watershed through targeted on-site sewage facilities remediation, education and outreach, and pet waste station installations. This project will run through FY 2015.

#### Highland Bayou

The Watershed Characterization Report was completed in FY 2011 using \$275,000 of American Recovery and Reinvestment Act (ARRA) funds. Additional environmental data has been collected for this impaired water body in conjunction with the Clean Rivers Program. The information collection included the completion of a landscape analysis of nonpoint sources (NPS) of pollution; identification of potentially failing septic systems; and one-on-one meetings with local planners and decision makers. In January 2014, the project received \$100,000 in GBEP funding to complete the 9-element WPP for Highland Bayou.

#### Dickinson Bayou

Stakeholders have determined a Bridge Document is the best option for creating an approved Watershed Based Plan for the Dickinson Bayou watershed. This document will integrate appropriate pieces of the draft WPP and the approved Implementation Plan (I-Plan) for the Total Maximum Daily Load (TMDL) for Bacteria in Dickinson Bayou using the EPA 9 element guidance. Extension staff from Texas AgriLife is working with TCEQ staff to determine a plan to begin work on the Bridge Document in FY 2015. The Bacteria I-Plan was approved by TCEQ in January, 2014. GBEP supported the development of the WPP and provided staff support to develop the I-Plan. In 2014, watershed representatives continue to meet with GBEP to determine any GBEP resources needed to implement the WPP.

#### Bacteria Implementation Plan

In 2013 the I-Plan to address bacteria in the Houston-Galveston Region was completed. The Bacteria Implementation Group (BIG) anticipates implementation activities over the next 25 years, 2013-2036, with periodic reviews to track success and make necessary course corrections to improve the program's success.

While most activities in the I-Plan are to be funded using existing funding sources, such as public works department budgets, grant funding opportunities through TCEQ and other entities, other sources will be needed to (1) help sustain regional coordination efforts; (2) advance the use of new or novel technology and best management practices; and (3) expedite implementation.

#### Cedar Bayou

With suggestion from the GBEP, the H-GAC and Texas State Soil and Water Conservation Board (TSSWCB), using \$1.1 million in CWA §319 funding, commenced development of a WPP on Cedar Bayou in FY 2011. GBEP is providing matching funds and staff support for development of the WPP. The Cedar Bayou Watershed Partnership was formed from a diverse group of local stakeholders, and has met over the course of the intervening years to discuss the challenges and potential solutions in the watershed. Modeling and monitoring activities are ongoing, and the WPP will be completed by the end of 2014. In the meantime, project partners have already begun to implement best management practices, including signage for Polychlorinated biphenyls/Dioxins, large scale marine debris removal, and education and outreach efforts.

#### Double Bayou

The Double Bayou Watershed Characterization Report was completed in early FY 2012 using \$206,322 in ARRA funds, \$50,000 from the TMDL Program and \$12,000 from the GBEP. Accomplishments include additional environmental data collected for this 5(c) water body; completion of the watershed characterization report including water quality and land use analyses; and completed one on one meetings with local planners and decision makers. The project leads later received funding from TSSWCB's CWA §319 program for completing a WPP starting in FY 2012. Since the §319 funding began, larger stakeholder and focused workgroup meetings have been held, targeted water quality monitoring has begun, land use has been analyzed focusing on water quality impairments through discussions with stakeholders and several topic-specific workshops have been held or scheduled in the watershed (Watershed Stewards Training, Riparian Workshop, Feral Hog Workshops, etc.). In 2013 and 2104, the watershed representatives continued to meet with GBEP to determine if GBEP could assist by providing state funding to be used as matching funds required under the grant.

# **Water Quality Improvement Projects**

#### Dickinson Bayou

Initial implementation of the Dickinson Bayou WPP has begun with a TCEQ CWA §319 Program grant and support from the GBEP. A rain garden was completed on June 4, 2011 at Dickinson City Library. The garden handles run-off from the 10,000 square foot roof. A ten acre storm water wetland was created within the Clear Falls Clear Creek Independent School District detention basin and completed on December 31, 2011. In FY 2014 the contractor continued to monitor the site, remove non-indigenous species, and plant additional species. Efforts to implement measures from the Bacteria I-Plan will continue as funding is available.

#### Clear Creek

The City of League City with encouragement from the GBEP, sought and received a 2011 TCEQ §319 Program grant to control NPS pollution within the city limits. The million dollar grant and match from GBEP funded the construction of the Ghirardi WaterSmart Park, a 3.75 acre park that features NPS best management green infrastructure features including rain gardens, pervious pavement, bios-wales, rain water harvesting and a green room. This facility serves as a demonstration for residents, city staff and local developers as to how these practices can be implemented into landscapes and developments around League City and Galveston County. Additional tasks in FY 2014 include reviewing existing city ordinances, completing a report on best management practices retrofit recommendations for the Creekside District to control NPS run-off, and completing modeling of runoff quantity and quality for areas of new developments, including how best management practices can best be utilized to reduce both.

## **Armand Bayou**

In 2011, GBEP granted to the Environmental Institute of Houston \$544,000 to retrofit a detention pond, creating a 1.5 acre storm water wetland. The wetland was completed in August 2011 and treats run-off from 45 acres of buildings and parking lots on the University of Houston Clear Lake campus. Funding supported two years of monitoring, including water quality, biological and human use before, during, and after construction to provide important quality assured monitoring of the site.

Monitoring was completed in 2013. Preliminary analyses indicated that pollutant removal was documented for multiple pollutants and was influenced by both flow rates and retention time. The project also evaluated the ability of the storm eater wetland to treat water from Horsepen Bayou, an impaired tributary to Armand Bayou. Water was pumped during dry weather through the storm water wetland by a solar pump. Preliminary analysis showed that although feasible in freshwater riverine systems, the tidal nature of Horsepen Bayou limited the ability of the pump and treat technology due to the intrusion of saline water during dry periods. A technical report is in preparation that will be provided to the public and GBEP for future reference.

**Armand Bayou Implementation Plan** 

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The Armand Bayou I-Plan coordination committee and work groups were formed in early 2013. The committee reviewed the bacteria I-Plan developed by the BIG and determined they were interested in joining the BIG I-Plan instead of writing their own I-Plan, once the TMDL for Armand Bayou was completed. Currently the group is working on sending a letter of request and documentation of support from affected entities to the TCEQ to join the BIG.

#### Galveston and Brazoria Counties Storm Water Wetland

In FY 2013 the GBEP began to establish a storm water wetland program in two counties which expect to double in population size by 2030. The program is working in concert with city and county governments to establish a storm water wetland program and technology transfer. In addition to introducing and facilitating storm water wetlands in three upcoming projects in Alvin and Pearland (Brazoria County) and Clear Lake City (Harris County), the program continues to work through one-on-one meetings, technical workshops, establishment of a task force and funding assistance to create demonstration projects. An additional component is outreach to school districts where the educational capacity of storm water wetlands as outdoor classrooms has been recognized. The work will continue through FY 2015.

# Galveston Bay Fats, Oils, and Grease (FOG) Campaign

Starting in FY 2014, the FOG campaign is a joint project with the WSQ and the PPE subcommittees. In an effort to coordinate outreach and education efforts to the upper Galveston Bay Watershed in the Dallas area, GBEP is funding a project with GBF to implement the City of Dallas Water Utilities FOG outreach campaign called Cease the Grease. The Dallas campaign not only shows measureable success in reducing FOG-related SSOs, but the City is also willing to allow GBF to use their materials. The campaign will be implemented in the Galveston Bay region through the City of Nassau Bay and outreach materials and efforts will be tailored for the Galveston Bay region. City of Nassau Bay in partnership with the GBF will track the progress of the campaign based on the number of impressions achieved through marketing and outreach activities, knowledge change throughout the campaign based on pre and post test data in outreach programs and other indicators developed by the campaign workgroup. Additionally, GBF will request sanitary sewer overflow reports from TCEQ and municipalities in order to track whether or not a bacteria reduction results from campaign implementation. Tracking results will be shared with campaign partners, the City of Dallas as well as potential future partners and other regions looking for examples of a successful FOG reduction campaign. Funding for Phase II of this project is proposed for FY 2015.

# IMPROVING RESOURCE MANAGEMENT THROUGH TARGETED RESEARCH THAT INCREASES ECOSYSTEM UNDERSTANDING

The GBEP continues to focus on providing ecosystem based monitoring and research and encourage new information to inform resources managers through maintaining and updating a prioritized project spreadsheet. From this work projects such as the role of freshwater inflows on the bays plankton and sediment and nutrient loadings from the bay's major rives have been funded. In addition, several projects that have been identified as knowledge gaps have received funding by Texas Sea Grant or the Coastal Management Program.

#### Plankton Response

Results are beginning to provide a more comprehensive understanding of the relationship between the fresh water pulsed inflow (frequency, magnitude, and mode) events and estuarine ecosystem health thus allowing state water managers to optimize diversions while minimizing impacts to estuarine health. The project focused on understanding of the downstream ecological impacts of changes to freshwater inflows on estuaries, specifically phytoplankton, *Vallisneria* and *Rangia* communities. The collection of new data for the project spanned a range of inflow conditions into the Galveston Bay estuary between March 2010 and December 2012, with the "exceptional" drought running through 2011. Relationships between sediment and nutrient loading and salinities progressively increased throughout the Bay until spring 2012. Research indicated that the ongoing challenge will be to understand the linkages between the magnitude of freshwater inflow and the flora and fauna in Galveston Bay. This project ended in 2013.

**Sediment and Nutrient Loadings** 



Figure 5. USGS sampling the Trinity River near Wallisville, Texas—Taken by Sarah Bernhardt

This study is evaluating the variability of nutrient and sediment concentrations and loads entering Galveston Bay during a variety of flow conditions from freshwater inflows, including the Trinity River and San Jacinto River. Crews are collecting samples at locations near the entrance into Galveston Bay, as depicted in Figure 5. Samples are being collected for nutrients (total and fractions of Nitrogen and Phosphorus), and sediment (total suspended and size fractionation) concentration using United States Geological Survey (USGS) methods

for an equal discharge increment. Discharge measurements are also being collected at the time of sampling. Samples are being collected over a period of time to adequately characterize the stream flow entering Galveston Bay with particular emphasis on high-flow conditions. Additionally, an index velocity gage is being installed on the lower reaches of the Trinity River to gain a better understanding of freshwater inflow into Galveston Bay and evaluate monitoring possible surrogates for sediment and nutrient concentrations. The project will be completed in 2014.

#### **CONTINUE BUILDING REGIONAL SUPPORT FOR PPE**

The PPE Subcommittee continued supporting the Galveston Bay Public Awareness campaign in FY 2013. Stakeholders identified fostering public support and building public stewardship on a large scale as the second highest priority for GBEP's Charting the Course to 2015: Galveston Bay Strategic Action Plan. To address this priority and to strategically build regional support for sustaining a healthy Galveston Bay, GBEP collaborated on bay-related, community-based initiatives; expanded partnerships with local governments; led discussions on bay-related and Gulf-related issues and concerns; and executed the only regional, partner-supported campaign to increase awareness of Galveston Bay. Examples of these activities include:

- Supported community-based events such as Gatorfest, Learn to Fish, Jane Long Festival, Trash Bash, Bay Day and FeatherFest
- Garnered support for the campaign with Houston-area businesses and conservation groups, and local governments in key watersheds: Dickinson, Cedar Bayou, and Armand Bayou
- Partnered with a local news station
- Increased awareness of Galveston Bay and its value and actions that help protect the bay through a coordinated, regionally implemented campaign
- Revised and rebranded the Galveston Bay Drive and Discover guide for print, online, and mobile application.





Figure 6. Updated outreach booth prototype for FY 2014. Drawing courtesy of EnviroMedia.

GBEP implemented a public awareness campaign, involving key stakeholders, to reinforce implementation of The Plan's priorities. The goals of the Galveston Bay Public Awareness and Education Campaign—called *Back the Bay*—are to build awareness of the value of Galveston Bay, and encourage and motivate actions that support habitat conservation, water conservation, and water quality improvement.

In FY 2012 the campaign had a total of 14.4 million impressions, or the number of times people may have seen or heard about the campaign through web, television, print and outdoor advertising. Since the launch of the campaign, the GBEP has had an advertising partnership with the local Houston area National Broadcast Company (NBC) television station KPRC Channel 2. The partnership has achieved the following: over 10 million impressions on Justweather.com (KPRC Channel 2 website); and 4,150 click-thrus to BacktheBay.org. The fixed widget on the weather home page delivered 55 percent of all the impressions, yet delivered 65 percent of all the click-thrus. Also, an estimated 1.8 million viewers ages 18 and older have seen the television ads since March 26, 2012 through August 31, 2012.

In FY 2013, the campaign was implemented on a regional level in all five counties adjacent to Galveston Bay including Brazoria, Chambers, Galveston, Harris and Liberty counties. Implementation initiatives include: continued partnerships with KPRC Channel 2, local governments, the H-GAC, GBF, Armand Bayou Watershed Partnership, Artist Boat; and increasing awareness of Galveston Bay, its recreational activities, and positive behavior changes citizens can do at home.

The awareness campaign was awarded a \$1 million CIAP grant to implement the habitat conservation module of the campaign. Initiatives for this module include developing a new print ad, television spot and online presence focusing more on habitat conservation of Galveston Bay.

In April 2013, GBEP launched its 2013 partnership with KPRC Channel 2 and Click2Houston.com. GBEP began airing 7-second and 15-second television ads during weekly newscasts promoting resident's connection to Galveston Bay—a key campaign message—and the campaign brand, *Back the Bay*. GBEP also placed online advertisements on the weather page of Click2Houston.com (KPRC Channel 2's website). These ads showcase the value of Galveston Bay as well as residents' connection to the bay. Additionally, KPRC Channel 2 contributed a television banner called a snipe that runs during specific NBC broadcast programs such as the *Today Show, Tonight Show,* and *Saturday Night Live*.

For the FY 2013 media campaign implementation, GBEP created new 60- and 30-second radio spots. The public service announcement (PSA) ran on four of Houston's popular radio stations from April 1, 2013 through August 2013.

The FY 2013 campaign delivered a total of 41 million impressions, including more than 2 million added value impressions. Added value includes media placements provided to a campaign at no cost. Through PSA distribution, the partnership with KPRC and free radio placements, *Back the Bay* received free media valued at \$127,976.

The FY 2014 campaign began with a fall media buy that ran from September to October 2013. The fall media buy targeted hunters and fishers in the Galveston Bay area – a key target audience for the campaign. The buy included print ad placements in the Houston Chronicle's "Hunt Texas" publication and several community newspapers. The Houston Chronicle sponsorship also included online banners on Chron.com. Overall, the fall campaign generated more than 1.5 million impressions.

In October 2014, GBEP also launched a Hunter Channel "takeover" on Chron.com. A "takeover" is an exclusive advertising and branding opportunity on the homepage or popular interior page of a website. The *Back the Bay* takeover included custom background and online banners that ran through March 2014 on the hunting/fishing section of the site.

The general market campaign for FY 2014 was launched on January 20, 2014. Media includes: radio spots, county print insertions, Houston Chronicle print insertions, online banners, pre-roll video, broadcast video, and mobile banner ads. The campaign kicked off in "maintenance" mode (with creative materials from the previous year) just in time for the 2014 Winter Olympics. New campaign creative materials (see Figure 6, Figure 7, and Figure 8) which emphasize the connection between residents' storm drains and Galveston Bay

habitats, will begin airing in early March. The FY 2014 campaign is expected to generate 43,475,352 total impressions.



Figure 7. Back the Bay creative efforts in FY14 included a chalk art stop-motion video for web banners that featured a red fish and a nest of pelicans -- Image provided by EnviroMedia.



Figure 8. Back the Bay creative efforts in FY14 included a "take-over" page on the Chron.com Hunting and Fishing page -- Image provided by EnviroMedia.

#### Galveston Bay Drive and Discover Guide

In connection to the Public Awareness Campaign, the GBEP partnered with GBF and KPRC Channel 2 to revise and update the Galveston Bay Drive and Discover Guide. A web and a mobile app that is compatible with tablets and smartphones have been developed. The print copies of the guide are being distributed to regional visitor centers, tourist bureaus and other locations by GBF.

#### Trash Bash

In March 2014, GBEP coordinated the 21<sup>st</sup> Annual Trash Bash cleanup at Mason Park along Brays Bayou and one of 17 clean-up sites across the Houston-Galveston area. The event promotes environmental stewardship and encourages volunteers to do their part at home by properly disposing of trash, household chemicals, and pet waste.

250 volunteers collected an estimated 2,800 lbs. of trash at Mason Park. Their efforts enabled 20 lbs. of materials to be recycled. Each year, Trash Bash meets or surpasses volunteer goals. In 2013, volunteers from all over the Houston-Galveston area cleaned 163 miles of shoreline, collected approximately 98,745 lbs. of

trash—including 477 tires—and recycled 5,700 lbs. of trash.
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Galveston Bay Estuary Program

# FY 2014 LEVERAGING, TRAVEL, AND TECH TRANSFER AMOUNTS

Table 2 describes how CWA Section 320 FY 14 funds were leveraged in the last year.

Table 2. FY 2014 Leveraging

EPA Funds to Program (Section 320)	Other Federal Funds (Role - Primary)	State Funds to Program (Role - Primary)	Local Government Funds to Program and In-Kind (Role- Primary)	Private to GBEP Projects & In-kind (Role - Significant)
\$512,000	\$3,393,000	\$2,149,088	\$0	\$4,075,000

Table 3 depicts the travel expenses and tech transfer descriptions from the last year.

Table 3. FY 2014 Travel and Tech Transfer

EVENT, LOCATION PURPOSE	STAFF PERSON	AMOUNT
The Resources and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coast States (RESTORE) Act Public Meeting Galveston, TX June 2013 -Public comment and scoping session for RESTORE in Texas	Lindsey Sarah Cynthia	\$0
Gulf Coast Joint Venture-Texas Mid-coast Meeting		
Edna, TX June 2013  -Semiannual meeting to discuss bird habitat conservation project ideas in the mid-coast region within a partnership forum of field-level biologists	Lindsey	\$0
Natural Resource Damage Assessment Public Meeting,		
Galveston, TX, June 2013 -Public comment session for the Draft Programmatic Environmental Impact Statement	Lindsey	\$0
GLO Technical Advisory Committee Meeting		
Galveston, TX, July 2013		
-Region 1 meeting to review the problems and potential solutions for critical coastal areas, identify and rank the issues or concerns for that area, provide possible management alternatives, estimate project cost, describe environmental and economic concerns, and determine the project's likelihood of success.	Lindsey	\$0

EVENT, LOCATION PURPOSE	STAFF PERSON	AMOUNT	
Southeast and South Central Texas Regional			
Watershed Coordination Steering Committee			
TSSWCB	Sarah	\$70	
Wharton, TX, September 2013		<b>,</b>	
-Presentations and dialog on issues relating to fish kills and spills, and other pertinent watershed management presentations.			
Back the Bay Presentation			
Austin, TX, September 2013	Sarah, Cynthia,	\$330	
-Staff gave presentation to TCEQ officials regarding the Galveston Bay public awareness campaign	Michelle	<b>4330</b>	
Lone Star Coastal National Recreation Area Informational Meeting Houston, TX, October 2013	Sarah	\$0	
-Informational meeting providing updates from the lead entities developing a new potential national recreation area.	Saran	70	
Fall Association of National Estuary Programs (ANEP) Tech- Transfer Meeting			
Mobile, AL, November 2013	Sarah	\$2,170	
- Technology transfer between the 28 National Estuary Programs (NEPs), field trips to the Mobile Bay NEP's project sites, and ANEP Board of Directors meeting.		, =,== 5	
Audubon Texas Coastal Wardens Meeting			
Texas City, TX, November 2013	Lindsey		
-Meeting with resource managers, agency representatives, and Audubon Texas Coastal Wardens to discuss current status and needs for rookery islands along the Texas coast.	Michelle	\$0	
Coastal Texas Steward Workshop			
Sugarland, TX, November 2013			
-Staff attended educational training to promote healthy watersheds and gain knowledge to prevent and/or resolve water quality problems	Michelle	\$0	
Five Years After Hurricane Ike Conference, Rice University			
Houston, TX, December 2013		4.00	
- Information transfer from other regions, lessons learned post Ike, and future planning for preparedness in the Houston-Galveston region.	Sarah	\$180	

EVENT, LOCATION PURPOSE	STAFF PERSON	AMOUNT	
Natural Resource Damage Assessment Public Meeting			
Galveston, TX, January 2014	Lindsey	\$0	
-Public comment session for the Programmatic Environmental Impact Statement and Phase III Early Restoration Plan	aoc,		
Gulf Coast Joint Venture-Texas Mid-coast Meeting			
Port Lavaca, TX June 2013	Lindsey		
-Semiannual meeting to discuss bird habitat conservation project ideas in the mid-coast region within a partnership forum of field-level biologists	Michelle	\$0	
Spring EPA-NEP Meeting and Conference,			
Washington D.C., February 2014	Sarah	\$1,890	
- Training, information transfer, and updates from EPA, including ANEP Board of Directors meeting.	Saran	<b>42,630</b>	
Watershed Coordinator Steering Committee			
Columbus, TX, March 2014			
-Staff attended a presentation by Texas Water Resources Institute (TWRI) regarding TWRI Basins Project as well as a presentation by Texas Forest Service which explained how the Forest Service assessed the economic value of trees in Texas.	Lisa	\$0	
State of the Gulf of Mexico Summit			
Houston, TX, March 2014	Sarah,		
- Gulf wide conversations and presentations about coordinated efforts to plan for regional resiliency and collaboration relating to potential post- oil spill funding in the Gulf of Mexico.	Michelle, Lisa	\$600	
Environmental Roundtable			
Houston, TX, April 2014	Sarah, Cynthia,	\$0	
-Presented information about the Back the Bay campaign to stakeholders in the Houston-Galveston area.	Michelle, Mary	,50	
TCEQ Trade Fair			
Austin, TX, May 2014			
-Presenting information about GBEP to the Trade Fair audience, and attending presentations about any water related issues that affect the watershed while in attendance.	Sarah	\$50 (Estimate)	
Total		\$5,290	

# **SECTION 2.3: STRATEGIC ACTION PLAN GOALS TO FOCUS ON IN FY 2015**

- Create, restore, and protect important coastal habitats.
- Reduce NPS pollutant loads through coordination with local watershed initiatives and implementing water quality improvement projects.
- Create a sense of personal ownership and shared responsibility among all cultural components of the community, including the public, industry and government.
- Ensure that stakeholders receive the knowledge necessary to act on GBEP's priorities in ways that benefit the bay and the entire community.

#### **FY 2015 EXPECTED OUTCOMES**

- Create, restore, and protect important coastal habitats.
- Increased coordination and more strategic implementation of water quality improvement activities in Galveston Bay oyster waters, Armand Bayou, Bastrop Bayou, Double Bayou, Cedar Bayou, Highland Bayou, Clear Creek, and Dickinson Bayou watersheds.
- Increase technical transfer from demonstration projects with local governments concerning the value of storm water wetlands for improving storm water and assisting implementation of their National Pollutant Discharge Elimination System permits.
- Inform and educate adults and children through presentations, exhibiting events, voluntary events, and the *Back the Bay* campaign for a total of approximately 25 million impressions.
- Continue to build a brand for Galveston Bay across the Houston-Galveston region through the implementation of *Back the Bay* campaign.
- Continue to elevate the prominence of Galveston Bay issues in the local media and the general public's ability to recall Galveston Bay issues through a targeted media blitz (public service announcements, paid advertisements, and increased media coverage) in Brazoria, Chambers, Galveston, Harris and Liberty counties.

# **FY 2015 EXPECTED OUTPUTS**

- Conserve and protect 500 acres of habitat.
- Restore and enhance 500 acres of habitat.
- Complete one draft WPP to be submitted to the EPA for review.
- Begin one water quality implementation project in Galveston or Brazoria County.
- Continue to facilitate §319 funded project and/or State Revolving Fund proposal with a local government.
- Complete six presentations to bay user groups, civic groups, non-profit organizations and schools and provide exhibits at ten local events.
- Continue implementing the Galveston Bay Awareness and Education campaign.
- Develop and deliver one televised and web-based environmental story concerning Galveston Bay.

#### **FY 2015 STATE AND FEDERAL FUNDING**

The total cost of the FY 2015 work plan is \$1,076,000. Fifty percent (\$538,000) of the project cost is provided by federal funds; fifty percent (\$538,000) in match is being provided by TCEQ through general revenue, as described in Table 4 and Table 5. These tables exclude additional state and local funding.

Table 4. FY 2015 Funding

PROGRAM	AMOUNT (\$)	% OF TOTAL
GBEP	\$1,076,000	100%
Total	\$1,076,000	100%

Table 5. FY 2015 Budget Detail

BUDGET DETAIL- See Also Budget Worksheets (Table 6)	AMOUNT (\$)
Salaries (Includes Fringe and Indirect)	\$498,629
Travel	\$7,500
Capital	\$0
Supplies	\$5,921
Contracts	\$320,000
Other	\$243,950
Total	\$1,076,000

#### **PROJECT SCHEDULE**

The execution of the tasks associated with this work plan will occur over a 36-month period, which is anticipated to begin September 1, 2014, and end August 31, 2017. The exact start date of the work plan and all due dates for deliverables are contingent upon the actual date the grant funds are awarded and contracts executed.

The projects outlined in this work plan were developed by the NRU Subcommittee, WSQ Subcommittee, Monitoring Subcommittee, PPE Subcommittee, and the M&R Subcommittees, ranked by the Budget and Priorities (B&P) Subcommittee, and submitted to the GBC for approval in April, 2014. The GBC approved projects listed in this work plan at the April 23, 2014 quarterly meeting.

The project work plans will be submitted to the TCEQ Quality Assurance Officer and EPA Project Officer for review to determine which projects in the work plan will require a Quality Assurance Project Plan (QAPP). Under the authority granted by EPA to TCEQ to approve QAPPs for GBEP, GBEP staff and their project partners will develop QAPPs for projects determined by TCEQ and EPA to require QAPPs. QAPPs will be developed in accordance with EPA requirements for QA Project Plans, QA/R-5.

# **SECTION 3: FY 2015 PROJECTS**

# **SECTION 3.1: FY 2015 FEDERAL PROJECTS BY PROGRAM ELEMENT**

Table 6 depicts the FY 2015 federal projects, broken out by program element.

Table 6. FY 2015 Federal Projects by Program Element

PROJECT NAME	YEARS	FEDERAL	STATE MATCH	TOTAL 2015 GBEP BUDGET	STATUS	
Program Administration (Includes supplies, travel, salary, printing, fringe & indirect, intern)	2015	\$257,525	\$257,525	\$515,050	Annual	
GBEP Website	2015	\$802	\$802	\$1604	Annual	
Admin Total				\$516,654		
No Federally Funded NRU Projects				\$-	N/A	
NRU Total				\$-		
1. Top Five, Least Five Priority Bacteria Impaired Assessment Units	2015-216	\$10,000	\$10,000	\$20,000	New Project	
2. Galveston Bay Fats, Oils and Grease Campaign Phase II	2014-2015	\$23,000	\$23,000	\$46,000	Ongoing	
WSQ Total				\$66,000		
3. GB Public Awareness Campaign	2010-2015	\$158,500	\$158,500	\$317,000	Ongoing	
4. Trash Bash 2015	2015	\$750	\$750	\$1,500	Annual	
5. Symposium	2015-2016	\$12,500	\$12,500	\$25,000	New Project	
PPE Total				\$343,500		
6. Monitoring and Research RFGA	2014-2016	\$45,923	\$45,923	\$91,846	Ongoing	
7. Status and Trends	2014-2015	\$29,000	\$29,000	\$58,000	Ongoing	
M&R Total				\$149,846		
FUNDING REQUEST GRANT TOTAL				\$1,076,000		

#### **SECTION 3.2: FY 2015 FEDERAL PROJECT DESCRIPTIONS**

#### 3.2A - NRU PROJECTS FOR FY 2015

No Federally Funded NRU Projects

#### 3.2B - WSQ PROJECTS FOR FY 2015

### 1. Top Five, Least Five Priority Bacteria Impaired Assessment Units

CCMP Actions Implemented: WSQ-1; NPS-3; PPE-3

Grantee/Contractor: H-GAC

FY 2015 Budget: \$20,000

Project Total: \$100,000

Milestones: upon signature to 05/31/2015

Project Period: 2015

**Status:** New project for FY 2015

**Objective(s):** The goal of this project is to target 10 specific watersheds to conduct supplemental sampling and evaluation to identify specific sources of bacteria and reduce bacteria loading.

**Description:** H-GAC tracked bacteria levels in the BIG project area to determine the Top Five Most/Top Five Least Lists. The top five or "Most Wanted" are those streams with the highest geometric means relative to the state standards for bacteria and require the most improvement to reach those standards. The top five least or "Most Likely to Succeed" are those stream locations with the lowest geometric means relative to the state standards for bacteria and are most likely to reach the water quality standards with minor improvements. Through this proposal, H-GAC seeks funding to address these 10 targeted watersheds to identify sources of bacteria pollution through targeted monitoring. Once the sources are identified, report those sources to the appropriate entity for correction, demonstrate improved water quality, and document the project to demonstrate the value of a prioritized watershed approach through outreach materials and workshops. For FY 15 the project will be funded at \$20,000 to cover the cost of QAPP development. The rest of the project funding will be added in FY 16, after the QAPP has been approved.

**Outputs/Products:** Quality Assurance Project Plan: Ambient Monitoring; Land Use/Land Cover QAPP; and Wet and Dry Weather QAPP. Once QAPPS are completed and approved, the project will include a desk review/ground truth preliminary action report, wet/dry weather data report, source identification report, and outreach and education report.

#### **Outcomes**

Short-term: Data. Sources identified.

Intermediate: On the ground fixing of impairment by jurisdictions.

Long Term: Improved water quality

Pressures (+/-): Older infrastructure. Continued population growth in watershed.

#### 2. Galveston Bay FOG Campaign – Phase II

CCMP Actions Implemented: WSQ-1,5,6; PS-2; PPE-3

Grantee/Contractor: GBF

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FY 2015 Budget: \$46,000

Project Total: \$96,000

Milestones: upon signature to 05/31/2015

Project Period: 2014-2015

**Status:** This would be a continuing project in FY 2015.

**Objective(s):** The goal of this project is to reduce, via public education, bacteria loading into Galveston Bay caused by the release of FOG into sewer systems.

**Description:** Phase I of a region-wide community outreach campaign to reduce FOG in sewer systems was launched by GBF with GBEP funding in FY 2014 in order to reduce bacteria loading into Galveston Bay from sanitary sewer overflows. Improper disposal of FOG in homes and apartment complexes by individuals can be a large contributor to the overall sanitary sewer overflow issue. For example, 54% of overflow reports from 2001 to 2011 were grease related in the Oyster Waters TMDL region alone. Phase I of this project included establishing an active stakeholder workgroup, developing marketing and outreach materials, creating a distribution plan, recruiting municipalities to tie into the campaign, and tracking campaign progress. This FY 2015 proposal is for Phase II of the campaign, which will include continuing to facilitate the workgroup, updating and developing new marketing and outreach materials based on Phase I tracking results, increasing campaign distribution, and continuing to track campaign progress and resulting reductions in sanitary sewer overflows. GBF's overall goal during FY 2015 is to expand and improve the Cease the Grease campaign based on lessons learned in FY2014.

Outputs/Products: Public outreach campaign, materials, and implementation tracking.

#### **Outcomes**

Short-term: FOG marketing and outreach materials.

Intermediate: Voluntary compliance tracking on the number of households the campaign reaches.

Long Term: Fewer overflow reports.

Pressures (+/-): Decrease in the number of overflow reports and fewer impaired water bodies.

#### 3.2C - PPE PROJECTS FOR FY 2015

## 3. Galveston Bay Public Awareness and Education Campaign

CCMP Actions Implemented: All

Grantee/Contractor: EnviroMedia Social Marketing FY 2015 Budget: \$317,000 (GBEP) / \$350,000 (CIAP)

Total Budget: \$5,000,000

Milestones: upon signature to 05/31/2015

Project Period: 2015

**Status:** This project was initially approved by TCEQ and EPA for the FY 2008 work plan. Implementation is scalable and was designed to be carried out over several years with funding being added as it became available. The original contract was signed 2/3/10, and requires annual renewal amendments. Funding for bay-wide implementation (i.e., Brazoria, Galveston, Harris, Chambers and Liberty counties) began in September 2011 (FY 2012).

**Objective(s):** The objective of *Back the Bay* is to raise regional awareness and value of Galveston Bay, and promote environmentally-conscious actions—those that help preserve habitat, conserve water, and improve water quality.

**Description:** GBEP developed a regional public stewardship campaign, called *Back the Bay*, to increase public awareness and education about Galveston Bay. The campaign offers a fun and interactive way for residents to learn about the benefits of, and their connection to, our region's most valuable natural resource. The campaign also features conservation tips that benefit the bay. The campaign will be used to reinforce implementation of The Plan's priorities. This specifically includes: watershed-based, water-quality-improvement initiatives; habitat conservation; and freshwater inflows.

The campaign is being implemented in a phased rollout through August 2015. The campaign is comprehensive in nature and includes two phases. The first phase started with a pre-research project (Summer 2010), a pilot program project in a limited geographical region (Summer 2011), and post-pilot research (Summer 2011). These projects developed and tested campaign messages, creative and other tactics, and a campaign plan. The second phase began in the spring of 2012, and expanded to the entire five-county region. In order to maximize awareness and effectiveness, the campaign will expand as quickly as the budget allows both geographically and in terms of the media mix.

**Outputs/Products:** In FY 2015, the campaign will focus on the habitat module of the campaign to meet the requirements of the CIAP grant with a large media buy in both television and radio, and continuing with online, outdoor and print media. Research will be conducted at the end of the campaign season in August 2015 to test the effectiveness of the campaign's messages, tactics and creative materials.

#### **Outcomes**

Short-term: Increase awareness of the bay's value among target audiences through a branding of Galveston Bay and targeting media outlets to increase news coverage on the bay and its challenges

Intermediate: Identify desired actions for habitat preservation, increase in water quality, increased awareness of water consumption, identify barriers to desired actions in target audiences; continue to increase awareness of the bay's value among target audiences through a branding Galveston Bay, target media outlets to increase news coverage on the bay and its challenges.

Long Term: Change behaviors of audiences that are associated with habitat loss, degraded water quality, and water consumption in appropriate-identified percentage of the Houston-Galveston area targeted audiences—those whose behavior change will affect the most positive change. (Percentage of behavior change—as well as type—and target audiences was determined through extensive preliminary research before campaign implementation and reassess throughout campaign implementation.)

*Pressures (+/-):* Ability to raise funds beyond FY 2015—the project end date and competing management priorities.

#### 4. Trash Bash 2015

CCMP Actions Implemented: PPE-1, PPE-3, PPE-5, SD-5

Grantee/Contractor: H-GAC

FY 2015 Budget: \$1,500

Total Budget: To be determined.

Milestones: Upon approval thru 5/31/15

Project Period: 2015

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**Status:** This is an annual project funded at various levels each year. TCEQ and EPA approved the project for the FY 13 and FY 14 work plan, and GBEP is proposing it again for FY 15.

**Objective(s):** The goal of Trash Bash is to "promote environmental stewardship of our watershed through public education by utilizing hands-on educational tools and by developing partnerships between environmental, governmental and private organizations."

**Description:** Trash Bash is a successful volunteer-based litter cleanup event that has been held at multiple sites in the Houston-Galveston area on an annual basis since 1994. This grant's funds help promote and implement the Trash Bash 2015 by paying for items such as, but not limited to, supporting staff to coordinate activities with site leads and collect and share results, printing and postage of promotional materials and for acquiring supplies for the participating sites.

**Outputs/Products:** Final report including a copy of the press release, media advisory, a paid advertisement, number of trash bash sites, number of volunteers and hours, number of exhibitors, number of partners organizing the event, number of save-the-date cards mailed to potential participants, and a survey.

#### **Outcomes**

Short-term: Increase number of new participants by 10%; increase pounds of trash collected by 1%; increase pounds of materials recycled by 10%; increase awareness level of the connection between littering, how litter enters into our waterways, and the negative impacts it has on neighboring communities, fish and wildlife by 10% at one Trash Bash location (Mason Park); increase news coverage of the Trash Bash event and the harmful environmental impacts of littering on our area waterways by 10%; increase the dollar value of free publicity from the news coverage by 10%.

*Intermediate*: Increase awareness of actions associated with litter prevention in a neighborhood located next to Mason Park.

Long Term: Increase awareness level of the connection between littering, how litter enters into our waterways, and the negative impacts it has on neighboring communities, fish and wildlife by 10% at all Trash Bash locations. Decrease the amount of trash flowing into area waterways through educating citizens on appropriate actions i.e. do not litter in your neighborhood, along the roads, etc.

*Pressures* (+/-): Continued increase in the amount of trash flowing into area waterways from influxes in populations not familiar with the harmful environmental impacts of littering and insufficient community pride associated with litter-free neighborhoods.

#### 5. State of the Bay Symposium 2015

CCMP Actions Implemented: PPE-1, 2, 3, 4, 5, 6, 7, 8; RSC-3

Grantee/Contractor: To be determined (Galveston Bay Foundation?).

FY 2015 Budget: \$25,000

Total Budget: \$70,000 (TBD)

Milestones: Upon approval thru 5/31/15

Project Period: 2015

**Status**: This event has historically been held every three to five years, with the last symposium occurring in 2009.

**Description**: The GBEP will invite program partners, Galveston Bay Council members and subcommittee members, students, citizens, local governments, and the general public to participate. The Galveston Bay

Plan's Public Participation and Education Action Plan includes Action PPE-2: To continue and expand the State of the Bay Symposia (p. 238).

**Objective(s):** Provide a forum for bay user groups and partners to share results of projects, research and collaborations.

**Outputs/Products**: The event will be a 2 day event with a reception planned for the evening before. Two general sessions are proposed, with six breakout sessions in the morning and in the afternoon. As many as 60 speakers could be accommodated with a minimum of two speakers per session and two lunch speakers, or an introductory and ending speaker each day.

#### **Outcomes**

Short-term: Sharing of results and ideas amongst stakeholders.

Intermediate: Increased collaboration within Galveston Bay watershed.

Long Term: Fostering implementation of The Plan.

*Pressures* (+/-): Loss of program staff involved with the planning of the symposia.

#### 3.2D - M&R PROJECTS FOR FY 2015

# 6. Monitoring and Research RFGA

CCMP Actions Implemented: RSC-2, 4
Grantee/Contractor: To be determined

FY 2015 Budget: \$91,846

Total Project Budget: \$274,240

Milestones: upon signature to 05/31/2016

Project period: 2014-2016

**Status:** This is a continuation of a project started in 2014.

**Objective(s):** The objective of this project is to fund research in four predetermined areas that were identified and prioritized by the Research and Monitoring Subcommittee.

**Description:** The M&R RFGA will seek projects addressing the top four project areas identified and prioritized by the Research and Monitoring Subcommittee. One to three projects will be selected this fiscal year for funding based on the quality of submitted grant applications. Selected projects could use funds across multiple fiscal years. The top four project areas are: Beneficial Flows in Galveston Bay: Quality, Quantity, and Patterns; Fauna of Galveston Bay: Benthic, Nekton, and Colonial Waterbirds; Wetland Habitat Management in Galveston Bay; and Economic and Social Valuation of Galveston Bay Habitats.

**Outputs:** Data collected; peer reviewed articles; bibliography; analysis; presentations; and final report.

#### **Outcomes**

Short-term: One to three Galveston Bay ecosystem based research and monitoring projects being conducted.

*Intermediate:* Available data and supportable conclusions to be used by resource managers and future CCMP implementation and planning.

Long Term: Improved CCMP management of Galveston Bay.

Pressures (+/-): RFGA provides an incentive for universities and research organizations to increase their efforts

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on researching Galveston Bay and supplementing Estuary Program funding with other sources, e.g. Coastal Management Program and Texas Sea Grant.

#### 7. Status and Trends

CCMP Actions Implemented: All

Grantee/Contractor: TAMUG

FY 2015 Budget: \$58,000

Total Project Budget: \$115,228

Milestones: upon signature to 05/31/2015

Project period: 2014-2015

Status: Status and Trends is conducted annually and is needed to meet reporting requirements.

**Objective(s):** The objective of this project is to update the current Status and Trends data and to create a publically accessible web interface that includes interactive data mapping. This project also serves as a tool to provide summary analysis of status and trends in Galveston Bay to the program.

**Description:** TAMUG will continue GBEP's Status and Trends project. The organization will develop a QAPP; house and maintain the necessary infrastructure according to quality assurance protocols; update the databases with the latest high quality data concerning water quality and quantity, habitat, wildlife, and other Galveston Bay related environmental, economic and social data; develop a new database and web interface accessible to the public, complete with interactive data mapping features; provide summary analysis for GBEP, GBC, GBC subcommittees, resource managers, local governments, universities, schools and the general public; and make presentations to interested organizations and associations.

**Outputs:** Agency data acquired; databases updated; QAPP; website developed, updated and maintained; presentations; and final report.

#### **Outcomes**

Short-term: Annual update of relevant state and federal environmental data.

Intermediate: Website developed and maintained, improved, updated, and users tracked.

Long Term: Use of data and website by GBEP, stakeholders, researchers, decision makers, and the public.

*Pressures* (+/-): Loss of data and ability of access has been a long term concern that is eliminated by maintaining an annual Status and Trends project.

# **SECTION 3.3: FY 2015 GRANT BUDGET SPREADSHEET**

Figure 9 depicts the Grant Budget Spreadsheet for FY 2015. Table 7 provides a summary of the FY 15 budget.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY				(c) FY: 2015 (d)						(d)	As of Date: 04/15/14						
(a) GRANT TITLE: EPA-GBEP FY 2015 Grant (b) USAS NO.: 900577		(e) M	e) Match: Fed.%		50%	5	State %		50%								
				<b>(f)</b> Ag	gency Fund:		1535										
(j) DIV.#: 5400				(g)	EPA Goal #		EPA Goal #		EPA	Goal #		EPA Goal #		EPA Goal #		EPA Goal #	
(k) DIVISION:					2 (and 4)		2 (and 4)		2 (;	and 4)		2 (and 4)		2 (and 4)			
Water	Quality Planr	ning		(h) Strategy #		1	Strategy #		Stra	ategy#		Strategy #		Strategy #		Strategy #	
					01-01-02		01-01-02		01-01-02			01-01-02		01-01-02			
(I) EXPENSE ITE	мѕ		(m)	(i)	(1) PRG.ELE ENT NAME		(2) PRG.ELEMENT NAME		PRG.E	(3) ELEMENT AME	I	(4) PRG.ELEMENT NAME		(5) PRG.ELEMENT NAME		(6) PRG.ELEMENT NAME	
(I) EXPENSE HEINS		тот	AL COSTS	Natu	ral Resource Uses	s	s Water & Sedment Quality		Public Part. & Education		Monitoring & Research		Adminstration				
Work Years:	>>>>>		1.00	(n)	0.	00	0	.00		0.00		0.00		1.00		0.0	
1-SALARIES: (Base Salary + Release)	>>>>>	\$	321,385	(o)	\$	-	\$	- :	\$	-	\$	-	\$	321,385	\$		
2-CONTRACTS:	>>>>>		320,000			-		-		317,000		-		3,000			
3-TRAVEL:	>>>>>		7,500			-		-		-		-		7,500			
4-OTHER:	>>>>>		243,950			-	66,0	00		26,500		149,846		1,604			
5-SUPPLIES:	>>>>>		5,921			-		-		-		-		5,921			
6-EQUIPMENT:	>>>>>		<u> </u>			-		-		-		-		-			
7-CONSTRUCTION:	>>>>>		-			-		-		-		-		-			
SUBTOTAL		\$	898,756	(p)	\$	-	\$ 66,0	00	\$	343,500	\$	149,846	\$	339,410	\$		
(g) FRINGE:	25.90%		83,239	(s)								<u>.</u>	•	83,239			
(r) INDIRECT COST:	29.25%		94,005	(t)		-						_	•	94,005			
GRAND TOTAL	1:::::::::::::::::::::::::::::::::::::	\$	1,076,000	(u)	\$		\$ 66,0	00	\$	343,500	\$	149,846	\$	516,654	\$		
(v) MATCH AMOUNTS	BY PE:																
FEDERAL:	>>>>>		538,000			4	33,0			171,750		74,923		258,327			
DIRECT:	>>>>>		538,000			- "	33,0	00		171,750		74,923	7	258,327			
INDIRECT:	>>>>>		-			-		-		-		-		-			
EXTERNAL:	>>>>>					-		-		-		-		-			
(w) TOTAL GRANT FU	JNDING	\$	1,076,000	\$		4	\$ 66,0	00	\$	343,500	\$	149,846	\$	516,654	\$		
(x) NOTES/COMME	NTS:	See	Budget Sur	nmarv	y below for c	leta	ils.										

Figure 9. FY 2015 Grant Budget Spreadsheet

Table 7. 2015 GBEP Budget Summary

2015 GBEP BUDGET SUMMARY	PROGRAM ELEMENT	AMOUNT	WORK PLAN PAGE #			
Salaries		\$321,385				
Salaries for staff members of GBEP	5	\$321,385	N/A			
Contracts		\$320,000				
Galveston Bay Public Awareness Campaign	3	\$317,000	24			
Mickey Leland Intern	5	\$3,000	N/A			
Travel (Breakdown in Table 8)		\$7,500				
Travel for Program Manager to attend ANEP Fall Meeting	5	\$2,500	N/A			
Travel for Staff to attend ANEP Fall Meeting	5	\$2,500	N/A			
Travel for Staff to attend ANEP Spring Meeting	5	\$2,500	N/A			
Other		\$243,950				
1. Top Five, Least Five Priority Bacteria Impaired Assessment Units	4	\$20,000	23			
2. Galveston Bay FOG Campaign Phase II	2	\$46,000	23			
3. Trash Bash 2015	3	\$1,500	25			
4. Symposium Planning Phase I	3	\$25,000	26			
5. M&R RFGA	4	\$91,846	27			
6. Status and Trends	4	\$58,000	28			
7. GBEP Website	5	\$1,604	N/A			
Supplies		\$5,921				
Toner Cartridges for Printers	5	\$721	N/A			
Supplies for Outreach and Education	5	\$200	N/A			
Plan Printing	5	\$5,000	N/A			
Fringe and Indirect		\$177,244				
2015 GRANT TOTAL		\$1,076,000				

**Table 8. Travel Summary by Trip** 

Travel Summary	Amount				
ANEP Fall Meeting in DC (1 person travel, 4 days)	\$2,500				
Airfare	\$1,298				
Lodging (\$183/night)	\$732				
Hotel Tax (14.5%)	\$106				
Taxi/transport	\$80				
Parking	\$100				
Per diem (\$46/day)	\$184				
ANEP Fall Meeting in DC (1 person travel, 4 days)	\$2,500				
Airfare	\$1,298				
Lodging (\$183/night)	\$732				
Hotel Tax (14.5%)	\$106				
Taxi/transport	\$80				
Parking	\$100				
Per diem (\$46/day)	\$184				
ANEP Spring Meeting in DC (1 person travel, 4 days)	\$2,500				
Airfare	\$1,298				
Lodging (\$183/night)	\$732				
Hotel Tax (14.5%)	\$106				
Taxi/transport	\$80				
Parking	\$100				
Per diem (\$46/day)	\$184				
2015 Travel Estimate Total*	\$7,500				

<sup>\*</sup>All out of state travel is dependent on management review and approval. Rates for FY 2015 are subject to change and estimates are based on previous trips from FY 2014.

# **SECTION 3.4: FY 2015 STATE PROJECTS BY PROGRAM ELEMENT**

The projects outlined in this work plan were developed by the NRU Subcommittee, WSQ Subcommittee, PPE Subcommittee, and the M&R Subcommittees, ranked by the B&P Subcommittee, and submitted to the GBC for approval in April. The GBC approved projects listed in this work plan at the April 23, 2014 quarterly meeting. All amounts depicted in Table 9 are dependent upon available state funding.

Table 9. FY 2015 State Projects by Program Element

PROJECT NAME	YEARS	FY 15 REQUEST	TOTAL PROJECT COST				
Administration	2015	\$25,487	Annual				
Administration		\$25,487					
Oyster Lake Shoreline     Protection Phase II	2015- 2017	\$80,000	Securing additional funding from other sources				
2. Greens Lake Shoreline Protection Project	2015- 2017	\$50,000	Securing additional funding from other sources				
NRU		\$130,000					
3. Double Bayou Watershed Protection Plan	2012- 2016	\$129,126	\$1,400,000 (leveraging other funds including federal §319)				
WSQ		\$129,126					
No State-funded PPE		\$-	N/A				
No State-funded M&R		\$-	N/A				
PPE		\$-					
FUNDING REQUEST TOTAL		\$284,613					

## SECTION 3.5: FY 2015 STATE PROJECT DESCRIPTIONS

#### 3.5A - NRU PROJECTS FOR FY 2015

# 1. Oyster Lake Shoreline Protection Project Phase II



Figure 10. Google Earth Image of Oyster Lake Shoreline location

CCMP Actions Implemented: HP-1, HP-5, HP-9, SP-1

Grantee/Contractor: GBF FY 2015 Budget: \$80,000

Total Project Budget: \$80,000 (State funding will be used to leverage additional dollars as available.)

Milestones: upon signature to 05/31/2017

Project period: 2015-2017

**Status:** Project was approved in the FY14 GBEP Work Plan, but funding was unavailable.

**Description:** Oyster Lake is located at the western end of West Bay (see Figure 10) and is bounded on the northeast by the GIWW, the east by West Bay and by Bastrop Bay to the south. The property surrounding Oyster Lake is part of the Brazoria NWR.

The shoreline that borders West Bay has experienced severe erosion and is close to breaching in some areas. Approximate shoreline losses on the West Bay border are:

Since 1944, up to ~650' of loss on the West Bay side and ~150' from the Oyster Lake side.

Since 1995, up to ~175' of loss on the West Bay side and ~55' from the Oyster Lake side.

Currently, GBF, Brazoria National Wildlife Refuge, USFWS Coastal Program, and National Oceanic and Atmospheric Administration are working toward providing erosion protection on ~500 feet of the most severely eroded shoreline where there is immediate concern of a breach. Requested NRU funding would be used to provide erosion control measures along the remaining length of the shoreline (total shoreline length ~5,000').

**Outputs/Products:** Habitat acreage to be restored and/or protected is still being calculated as project details are refined.

#### 2. Greens Lake Shoreline Protection Project



Figure 11. Google Earth Image of Greens Lake Shoreline location

CCMP Actions Implemented: HP-1, HP-5, HP-9, SP-1

Grantee/Contractor: Ducks Unlimited

FY 2015 Budget: \$50,000

Total Project Budget: \$50,000 (State funding will be used to leverage additional dollars as available.)

Milestones: upon signature to 05/31/2017

Project period: 2015-2017

Status: Project was approved in FY 14 GBEP Work Plan, but funding was unavailable.

**Description:** The large, native marsh tract north of the GIWW (shown in Figure 11) between the outlets of Greens and Carancahua Lakes is more than 1,500 acres in size, and remains one of the largest and most intact marsh tracts in the western half of the Galveston Bay system. Prior to the 1960's, this marsh tract was primarily fresh to brackish in nature and had several large, open flats heavily used by wintering and breeding waterbirds. The intertidal habitats and the native mid-to-high marsh areas at the site continue to provide resources for waterfowl, shorebirds, wading birds, and other waterbirds. However, marsh loss and degradation due to erosion and saltwater intrusion is reducing the site's wildlife benefits.

Shoreline protection along the entire northern GIWW shoreline between the mouths of Greens and Carancahua Lakes is necessary to protect this important marsh tract from further loss and degradation. The location adjacent to the GIWW should make construction of such a linear bank protection project cost-effective. A permanent, breakwater structure similar to those along McFaddin NWR and J.D. Murphree and Mad Island Wildlife Management Areas would be built to stop erosive wave forces, and reduce shoreline loss and marsh degradation. Under Phase 1 activities, Ducks Unlimited will provide engineering, permitting and cost estimation support to the West Galveston Bay Landowners Association for implementing the proposed project. A subsequent Phase for construction will begin once regulatory authorization and adequate funds are secured.

Outputs/Products: Engineering and breakwater design reports for the Greens Lake shoreline along the GIWW.

# 3.5B - WSQ PROJECTS FOR FY 2015

#### 1. Double Bayou WPP

CCMP Actions Implemented: WSQ-1,2,6,7; NPS-1,2,3,4,5,6,10,11,12,13,14; PS-1,2,

Grantee/Contractor: Geotechnology Research Institute (GTRI)

FY 2015 Budget: \$ 129,126

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Project Total: \$ 1,400,000

Milestones: upon signature to 05/31/2016

Project Period: 2012 – 2016

**Status:** GTRI has applied for funding through the TSSWCB Clean Water Act §319 NPS Grant Program, which has a non-federal match requirement. Total costs for a three-year funding period was about \$1.4M to cover personnel, fringe, travel, contractual, other and indirect costs. GTRI is requesting \$129,126 in state dollars from GBEP to cover a portion of the non-federal match requirement.

**Description:** The Watershed Protection Planning in the Double Bayou Watershed project will address the current water quality problems of dissolved oxygen and bacteria in the East and West Forks of Double Bayou (segments identified on the TCEQ 2008 303(d) List), as well as lay the groundwork for future water quality protection before a TMDL is required for the watershed. The proposed project merits consideration for funding due to its approach of working with local stakeholders to develop a Double Bayou Watershed Protection Plan. The project will help to restore a 303(d) listed segment by identifying sources and developing an initial list of NPS management measures. GTRI will provide project administration and coordination, and be responsible for developing a water quality monitoring plan, partner-approved QAPP and data analysis, including development of load duration curves and modeling efforts. Shead Conservation Solutions will coordinate all stakeholder efforts. The USGS Water Resources will assist with data analysis and collect water quality monitoring data.

**Outputs/Products:** Deliverables will include a completed Double Bayou WPP that satisfies EPA's nine key element requirements and includes stakeholder involvement in the development.

#### 3.5C - PPE PROJECTS FOR FY 2014

No State-funded PPE Projects.

#### 3.5D - M&R PROJECTS FOR FY 2014

No State-funded M&R Projects.

## **SECTION 4: FY 2014 PROJECTS**

# **SECTION 4.1: FY 2014 FEDERAL PROJECTS BY PROGRAM ELEMENT**

The projects outlined in this work plan were developed by the NRU Subcommittee, WSQ Subcommittee, Monitoring Subcommittee, PPE Subcommittee, and the M&R Subcommittees, ranked by the Budget and Priorities (B&P) Subcommittee, and submitted to the GBC for approval in April. The GBC approved projects listed in this work plan (see Table 10) at the April 24, 2013 quarterly meeting.

Table 10. FY 2014 Federal Projects by Program Element

PROJECT NAME	FY 2014 REQUEST	FY 2015 UPDATE	STATUS			
Program Administration	\$493,443	\$446,899	Increased funding for out of state travel in order to attend both ANEP meetings; adjusted salary			
GBEP Website	\$1,517	\$1,605	Annual			
Admin Total	\$494,960	\$448,504				
Conservation Assistance     Program	\$-	\$94,450	Redirected funds from Galveston Bay Public Awareness Campaign (located in PPE program on the grant budget spreadsheet in Figure 12)			
NRU Total	\$-	\$94,450				
2. Galveston Bay FOG Campaign Phase I	\$50,000	\$50,000	No Change			
3. Highland Bayou Watershed Protection Plan	\$100,000	\$100,000	No Change			
WSQ Total	\$150,000	\$150,000				
4. Galveston Bay Public Awareness Campaign	\$130,000	\$86,424	Unloaded from salaries and vacancies			
5. Trash Bash 2014	\$5,000	\$5,000	No Change			
PPE Total	\$135,000	\$91,424				
6. M&R RFGA	\$194,040	\$182,394	Decreased funding to accoun for increased travel budget and increased Status and Trends project costs			
7. Status and Trends	\$50,000	\$57,228	Funding redirected from monitoring and research RFGA			
M&R Total	\$244,040	\$239,622				
FUNDING REQUEST GRANT TOTAL	\$1,024,000	\$1,024,000				

#### **SECTION 4.2: FY 2014 FEDERAL PROJECT DESCRIPTIONS**

#### 4.2A - NRU PROJECTS FOR FY 2014

# 1. Conservation Assistance Program

CCMP Actions Implemented: HP-1, HP-5, SP-1, SM-5, PPE-1

Grantee/Contractor: Galveston Bay Foundation

FY 2014 Budget: \$94,950

Total Project Budget: \$2,300,000

Milestones: upon signature to 8/31/14

Project period: 2015-2017

**Status:** Project was approved in FY 2010 GBEP Work Plan. To date, Galveston Bay Foundation and partners have permanently protected 1,889 acres of coastal habitat, leveraging an additional \$2,580,200 from outside sources. An additional 6,835 acres are in various stages of implementation, with \$8,675,000 in outside funding secured. A no-cost extension to August 31, 2017 to allow for completion of additional projects is being routed through TCEQ.

**Description:** The goal of this project is to place 1,000 acres of coastal habitat in the Galveston Bay area in permanent conservation. This Grant Agreement is intended to provide financial assistance to coordinate with conservation partners in the region to identify priority habitat areas; build funding strategies through grant identification and grant writing; work with willing sellers to negotiate price for fee simple acquisitions or easement rights; and carry-out legal and title transaction support to finalize sale and transfer title of property to a third party conservation/land trust organization or government entity.

**Outputs/Products:** Final Report

#### **Outcomes**

Short-term: Development of prioritized list of conservation projects and funding strategies.

*Intermediate:* Completion of 1-3 conservation projects in the lower Galveston Bay watershed through feesimple acquisition, easement, or purchase of development rights.

Long Term: The permanent conservation of coastal habitat and preservation of important hydrologic and water quality functions in West Bay;

*Pressures (+/-):* Decreasing pressure on West Bay due to increased protection of coastal habitat from development.

#### 4.2B - WSQ PROJECTS FOR FY 2014

## 2. Galveston Bay FOG Campaign - Phase I

CCMP Actions Implemented: WSQ-1,5,6; PS-2; PPE-3

Grantee/Contractor: GBF FY 2014 Budget: \$50,000 Project Total: \$96,000

-

Milestones: upon signature to 05/31/2015

FY 2015 Annual Work Plan, Page 37

Project Period: 2014-2015

Status: The contract is currently being routed through TCEQ to be executed before August 31, 2014.

See FY 2015 for details.

# 3. Highland Bayou WPP

CCMP Actions Implemented: WSQ-1,2,6,7; NPS-1,2,3,4,5,6,10,11,12,13,14; PS-1,2,5

Grantee/Contractor: TX AgriLife Extension

FY 2014 Budget: \$100,000

Project Total: \$475,000

Milestones: upon signature to 05/31/2015

Project Period: 2012-2015

**Status:** This is the third and final phase of the project which will complete the final four elements of the WPP. The first five elements were completed under the ARRA grant (\$275,000) and an additional \$100,000 grant from GBEP. The contract has been executed with Texas AgriLife, and the grantee is currently developing the QAPP.

Objective(s): Complete the final four elements of the Highland Bayou WPP.

**Description:** This phase will result in the completion of the Highland/Marchand Bayou nine element WPP. The watershed covers five municipalities although Hitchcock, La Marque, and Bayou Vista together cover approximately 85% of the watershed. The grant funding opportunities opened by a WPP are motivating the communities to participate in the WPP process. One or more grant proposals will be identified and developed concurrently with the WPP, with the goal of having a workable application ready for submission. Potential ideas discussed include collection system repairs and upgrades, which are sorely needed in some neighborhoods and would likely having an impact on bacteria levels in the bayou. The communities may qualify for SRF funding. This project phase would also entail the implementation of programmatic efforts, like education and outreach.

**Outputs/Products:** Increase local stakeholder support and involvement; support core EPA Clean Water Act Programs; build capacity for areas to secure federal funding; identify conservation areas and priorities in support of future watershed based habitat conservation.

#### **Outcomes**

Short-term: WPP.

Intermediate: Implementation of WPP.

Long Term: Improved water quality

*Pressures (+/-):* Decreased pollutant loads.

## 4.2C - PPE PROJECTS FOR FY 2014

# 4. Galveston Bay Public Awareness and Education Campaign

CCMP Actions Implemented: All

Grantee/Contractor: EnviroMedia Social Marketing

FY 2014 Budget: \$86,424 (GBEP) / \$650,000 (CIAP)

Total Budget: \$5,000,000

FY 2015 Annual Work Plan, Page 38

Milestones: upon signature to 08/31/2015

Project Period: 2014

**Status:** This project was initially approved by TCEQ and EPA for the FY 2008 work plan. Implementation is scalable and was designed to be carried out over several years with funding being added as it became available. The original contract was signed 2/3/10, and requires annual renewal amendments. Funding for bay-wide implementation (i.e., Brazoria, Galveston, Harris, Chambers and Liberty counties) began in September 2011 (FY 2012).

See FY 2015 for details.

#### 5. Trash Bash 2014

CCMP Actions Implemented: PPE-1, PPE-3, PPE-5, SD-5

Grantee/Contractor: H-GAC

FY 2014 Budget: \$5,000

Total Budget: To be determined.

Milestones: Upon approval thru 5/31/15

Project Period: 2015

Status: This is an annual project funded at various levels each year. TCEQ and EPA approved the project for the

FY 13 and FY 14 work plan, and GBEP is proposing it again for FY 15.

See FY 2015 for details.

#### 4.2D - M&R PROJECTS FOR FY 2014

#### 6. M&R RFGA

CCMP Actions Implemented: RSC-2, 4

Grantee/Contractor: To be determined

FY 2014 Budget: \$182,394

Total Project Budget: \$274,240

Milestones: upon signature to 5/31/2016

Project period: 2014-2015

Status: New Project in 2014. Currently waiting on approval and will be posted in late March to early April.

See FY 2015 for details.

#### 7. Status and Trends

CCMP Actions Implemented: All

Grantee/Contractor: TAMUG

FY 2014 Budget: \$57,228

Total Project Budget: \$115,228

Milestones: upon signature to 5/31/2016

Project period: 2014-2016

Status: Status and Trends is conducted annually and is needed to meet reporting requirements. The contract

FY 2015 Annual Work Plan, Page 39

is currently being routed through TCEQ to be executed before August 31, 2014. See FY 2015 for details.

# **SECTION 4.3: FY 2014 GRANT BUDGET SPREADSHEET**

Figure 12 depicts the current Grant Budget Spreadsheet for FY 2014.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY				141414141414141	(c) FY: 2014					(d)	As	of Date: 04/1				
(a) GRANT TITLE: EPA-GBEP FY 2014 Grant (b) USAS NO.: 900577		(e) Match: Fed.%		%	50%		State %		50%							
				<b>(f)</b> Ag	gency Fund	d: [		1535								
(j) DIV.#: 5400				(g)	EPA Goal	l #	E	EPA Goal #		EPA Goal #		EPA Goal #		EPA Goal #		EPA Goal #
(k) DIVISION: Water Quality Planning			2 (and 4) (h) Strategy #			2 (and 4) Strategy #		2 (and 4)		2 (and 4)			2 (and 4)			
					#				Strategy #		Strategy #		Strategy #		Strategy #	
				01-01-02			01-01-02		01-01-02		01-01-02		01-01-02			
(I) EXPENSE ITEMS (m) TOTAL COSTS		•	<i>(i)</i>	(1 PRG.E EN NAI	LEM T	P	(2) RG.ELEMENT NAME		(3) PRG.ELEMENT NAME		(4) PRG.ELEMENT NAME		(5) PRG.ELEMENT NAME	F	(6) PRG.ELEMENT NAME	
		TOTAL COSTS	COSTS	Natural Resources Uses		rces	Water & Sedment Quality		Public Part. & Education		Monitoring & Research		Adminstration			
Work Years:	>>>>>		1.00	(n)		0.00		0.00		0.00		0.00		1.00		0.00
1-SALARIES: (Base Salary + Release)	>>>>>	\$ 2	96,076	<b>(0)</b>	\$	-	\$	-	\$	-	\$	-	\$	296,076	\$	-
2-CONTRACTS:	>>>>>		88,029			-		-		86,424		-		1,605		-
3-TRAVEL:	>>>>>		4,500			-		-		-		-		4,500		-
4-OTHER:	>>>>>	4	89,072			-		150,000		99,450		239,622				-
5-SUPPLIES:	>>>>>		920			-		-		-		-		920		-
6-EQUIPMENT:	>>>>>		<u> </u>			-		-		-		-		-		-
7-CONSTRUCTION:	>>>>>		-			-		-		-		-		-		-
SUBTOTAL		\$ 8	78,597	(p)	\$	-	\$	150,000	\$	185,874	\$	239,622	\$	303,101	\$	-
(g) FRINGE:	21.77%		64,456	(s)									,	64,456		
(r) INDIRECT COST:	27.34%		80,947	(t)								<u>.</u> ,	•	80,947		
			00,01,											VVIV		
GRAND TOTAL		\$ 1,0	24,000	(u)	\$	-	\$	150,000	\$	185,874	\$	239,622	\$	448,504	\$	
(v) MATCH AMOUNTS I	BY PE:															
FEDERAL:	>>>>>	5	12,000			-		75,000		92,937		119,811		224,252		
DIRECT:	>>>>>	5	12,000			- '	•	75,000	•	92,937	•	119,811	7	224,252		-
INDIRECT:	>>>>>					-		-		-		-		-		-
EXTERNAL:	>>>>>		-			-				<u> </u>				-		-
(w) TOTAL GRANT FUN		, , , , , , , , , , , , , , ,	24,000				\$	150,000	\$	185,874	\$	239,622	\$	448,504	\$	
(x) NOTES/COMMEN	TS:	See Bud	lget Sur	nmar	y below fo	r deta	ails.									

Figure 12. FY 2014 Grant Budget Spreadsheet